Customer No.: 31561
Application No.: 10/708,174
Docket No.: 12446-US-PA

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed Oct. 03, 2005. Reconsideration and allowance of the application and presently pending claims 1-8 as amended are respectfully requested.

Present Status of the Application

Possible minor errors are requested to be corrected. The Office Action rejected claims 1-8 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Office Action also rejected claims 1-8 under 35 U.S.C. 102(b) as being anticipated by US Patent Application Publication, US 20020111166566A1.

In response thereto, Applicant submit that claims 1, 3-5, 7, and 8 are amended hereby; claims 2 and 6 are canceled hereby. All amended claims are fully supported by the specification.

Discussion of objections

Responsive to the Office Action on the basis of existed minor errors, informalities including typing errors, minor grammatical errors have been corrected as required. Accordingly, Applicant submits that the disclosure is now in allowable form.

Discussion of Office Action Rejections

The Office Action rejected claims 1-8 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action also rejected claims 1-8 under 35 U.S.C. 102(b) as being anticipated by Yukihiro Saida (US Patent Application Publication, US 2002011116566A1, "Saida", hereinafter for reference).

In response to the rejection to claims 1-8 under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has followed the Examiner's instruction and appropriate deletion of the word "type" has been made throughout the specification (i.e., in Paragraphs 0011-0010, 0012, 0014-0021), the claims and the abstract, as required. Appropriate amendments are also made throughout the claims as required. As such, Applicant submits that claims 1-8 are well organized to point out and distinctly claim the subject matter and thus are in allowable form.

Responsive to the rejection of claims 1-8 under 35 U.S.C. 102(b) as being anticipated by *Saida*, Applicant has amended claims 1, 3-5, 7, and 8 and canceled claims 2 and 6, and hereby otherwise traverses this rejection. As such, Applicant submits that claims 1, 3-5, 7, and 8 are now in condition for allowance.

With respect to claim 1, as amended, recites the features as follows:

1. A data transfer method for a USB device, comprising:
connecting a USB device to a USB;
determining whether a data transfer rate of a bulk transfer [[type]] transmission in the USB is lower than a predetermined value; and
using the bulk transfer transmission in the USB to transfer the data in the USB device if the data transfer rate of the bulk transfer transmission in the USB is not lower than the predetermined value, and/or swapping to use an interrupt transfer [[type]] transmission in the USB to transfer the data in the USB device [[when]] if the data transfer rate of the bulk transfer [[type]] transmission in the USB is lower than the predetermined value.

Applicant submits that such a data transfer method as set forth in claim 1 is neither taught, disclosed, nor suggested by *Saida* or any of the other cited references, taken alone or in combination.

Applicant acknowledges that *Saida* mentions that "the USB standards,....., includes a control transfer specification to transfer a control signal, an isochronous transfer specification to transfer a predetermined amount of data ..., a bulk transfer specification to transfer a predetermined amount of data ... and an interrupt specification to transfer an amount of data being smaller than those to be transferred according to both the isochronous transfer specification and the bulk transfer specification". Actually, as set forth by Applicant in the "BACKGROUND OF THE INVENTION", in Paragraph 0003, "There are four kinds of transfer [[type]] transmission defined in the USB protocol (include bulk, control, interrupt and isochronous). The most ~~familiar~~ frequently used transfer [[type]] transmission is bulk transfer. The bulk transfer [[type]] transmission is commonly used in the USB storage device for transmitting a great

amount of data. The bulk transfer [[type]] transmission has a USB hand shake mechanism, thus it can guarantee the correctness of the data transfer."

As such, Applicant recognizes in the application as originally filed that the USB protocol/standard includes four kinds as mentioned above, each of which performs differently. The present invention is intended to solve the problem of that "among various USB transmissions, since the bulk transfer [[type]] transmission cannot guarantee the data transfer bandwidth, when several USB devices are using a USB simultaneously, the bandwidth of the device using the bulk transfer [[type]] transmission is distributed and shared by all USB devices in the USB and the transfer rate is degraded" (partly recited from Paragraph [0003]). Therefore the present invention concerns mainly about the **conditions** for determining to **swap** from a **bulk transfer transmission** to an **interrupt transfer transmission** or to **swap** from an **interrupt transfer transmission** to a **bulk transfer transmission.**

However, *Saida* uses all of the four kinds rather than two as selected in the present invention, wherein **higher priority are assigned to the isochronous transfer specification.** (in Paragraph [0040] lines 39). *Saida* neither taught, nor suggest any action of **determining "whether a data transfer rate of a bulk transfer transmission in the USB is lower than a predetermined value"** or even **"comparing the data transfer rate of a bulk transfer transmission in the USB with a predetermined value"**. The description in Paragraph [0041] lines 1-4 of *Saida*, upon which the Office Action relied, does not anticipate the feature of "using the bulk transfer type transmission in the USB to transfer the data in the USB device when the

data transfer rate of the bulk transfer type transmission in the USB in not lower than the predetermined value" as claimed in the invention. Instead, as disclosed in the Paragraph [0041] of the *Saida*, it is disclosed that a bandwidth assigned to the isochronous transfer specification is larger than the bandwidth assigned to the bulk transfer specification, rather than "using the bulk transfer type transmission in the USB to transfer the data in the USB device when the data transfer rate of the bulk transfer type transmission in the USB in not lower than the predetermined value".

The setup in *Saida*, as such, is not at all like the present invention, as set forth in claim 1, in which the transfer transmission swaps between two kinds in accordance with certain conditions. Therefore the present data transfer method of claim 1, as amended, should not be considered as being anticipated by *Saida*, nor as being rendered obvious thereby.

In a similar manner, claim 5, as amended, recites the features as follows:

> 5. A data transfer method for a USB device, comprising:
> determining whether a data transfer rate of a bulk transfer [[type]] transmission in a USB connected to a USB device is lower than a predetermined value; and
> using the bulk transfer transmission in the USB to transfer the data in the USB device when the data transfer rate of the bulk transfer transmission in the USB is not lower than the predetermined value, and/or ~~selecting~~ using an interrupt transfer [[type]] transmission in the USB to transfer [[a]] data in the USB device [[when]] if the data transfer rate of the bulk transfer [[type]] transmission in the USB is lower than the predetermined value.

Applicant submits that such a data transfer method as set forth in claim 5 is neither taught, disclosed, nor suggested by *Saida* or any of the other cited references, taken alone or in combination. As set forth in the arguments with respect to claim 1, *Saida* does not disclose or

suggest "**determining whether a data transfer rate of a bulk transfer transmission in the USB is lower than a predetermined value**" or even "**comparing the data transfer rate of a bulk transfer transmission in the USB with a predetermined value**", as required in amended claim 5.

Accordingly, claims 1 and 5 are submitted to be novel, unobvious, and patentable over *Saida*, and the rejection should be withdrawn.

If independent claim 1 is allowable over the prior art of record, then its dependent claims 3 and 4 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 1. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

If independent claim 5 is allowable over the prior art of record, then its dependent claims 7 and 8 are allowable as a matter of law, because these dependent claims contain all features of their respective independent claim 1. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1, 3-5, 7 and 8 are in proper condition for allowance and an action to such effect is earnestly solicited. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

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